



WEAR	<b>NORMAL</b>
CONTAMINATION	<b>NORMAL</b>
FLUID CONDITION	<b>NORMAL</b>



Machine Id  
**426149 - SW4628**  
Component  
**Diesel Engine**  
Fluid  
**PETRO CANADA DURON SHP 15W40 (--- GAL)**

**RECOMMENDATION**

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>GFL0093510</b>	GFL0109307	GFL0109403
Sample Date		Client Info		<b>24 May 2024</b>	02 May 2024	12 Apr 2024
Machine Age	hrs	Client Info		<b>5016</b>	4888	4750
Oil Age	hrs	Client Info		<b>441</b>	313	175
Filter Age	hrs	Client Info		<b>441</b>	313	175
Oil Changed		Client Info		<b>Not Changd</b>	Not Changd	Not Changd
Filter Changed		Client Info		<b>Not Changd</b>	Not Changd	Not Changd
Sample Status				<b>NORMAL</b>	NORMAL	NORMAL

**WEAR**

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>80	<b>28</b>	26	22
Chromium	ppm	ASTM D5185m	>5	<b>2</b>	<1	2
Nickel	ppm	ASTM D5185m	>2	<b>&lt;1</b>	0	<1
Titanium	ppm	ASTM D5185m		<b>23</b>	22	22
Silver	ppm	ASTM D5185m	>3	<b>0</b>	0	0
Aluminum	ppm	ASTM D5185m	>30	<b>10</b>	7	7
Lead	ppm	ASTM D5185m	>30	<b>&lt;1</b>	<1	0
Copper	ppm	ASTM D5185m	>150	<b>4</b>	2	4
Tin	ppm	ASTM D5185m	>5	<b>&lt;1</b>	<1	<1
Vanadium	ppm	ASTM D5185m		<b>&lt;1</b>	0	<1
White Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE

**CONTAMINATION**

There is no indication of any contamination in the oil.

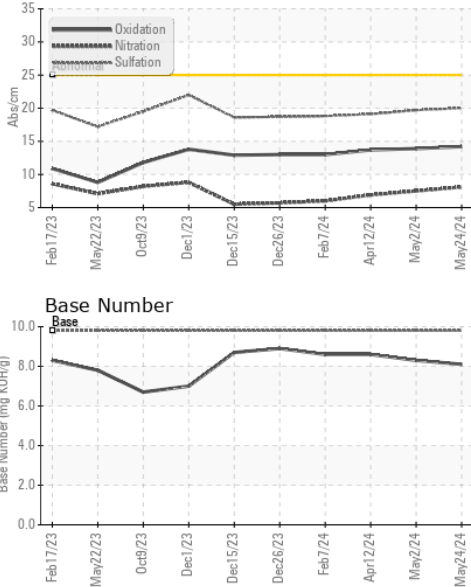
Silicon	ppm	ASTM D5185m	>20	<b>8</b>	6	7
Potassium	ppm	ASTM D5185m	>20	<b>6</b>	0	4
Fuel		WC Method	>5	<b>&lt;1.0</b>	<1.0	<1.0
Water		WC Method	>0.2	<b>NEG</b>	NEG	NEG
Glycol		WC Method		<b>NEG</b>	NEG	NEG
Soot %	%	*ASTM D7844	>3	<b>0.7</b>	0.6	0.5
Nitration	Abs/cm	*ASTM D7624	>20	<b>8.1</b>	7.5	6.9
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>20.0</b>	19.7	19.1
Silt	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Debris	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Appearance	scalar	*Visual	NORML	<b>NORML</b>	NORML	NORML
Odor	scalar	*Visual	NORML	<b>NORML</b>	NORML	NORML
Emulsified Water	scalar	*Visual	>0.2	<b>NEG</b>	NEG	NEG

**FLUID CONDITION**

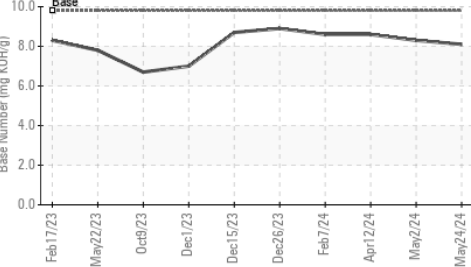
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

Sodium	ppm	ASTM D5185m		<b>2</b>	0	<1
Boron	ppm	ASTM D5185m	0	<b>24</b>	23	30
Barium	ppm	ASTM D5185m	0	<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185m	60	<b>44</b>	47	43
Manganese	ppm	ASTM D5185m	0	<b>1</b>	0	<1
Magnesium	ppm	ASTM D5185m	1010	<b>733</b>	790	643
Calcium	ppm	ASTM D5185m	1070	<b>1492</b>	1696	1423
Phosphorus	ppm	ASTM D5185m	1150	<b>1056</b>	1184	1026
Zinc	ppm	ASTM D5185m	1270	<b>1278</b>	1489	1179
Sulfur	ppm	ASTM D5185m	2060	<b>3644</b>	4387	3192
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>14.2</b>	13.9	13.7
Base Number (BN)	mg KOH/g	ASTM D2896	9.8	<b>8.1</b>	8.3	8.6
Visc @ 100°C	cSt	ASTM D445	15.4	<b>14.9</b>	14.9	14.8

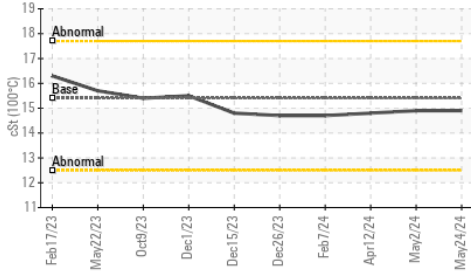
**FT-IR (Direct Trend)**



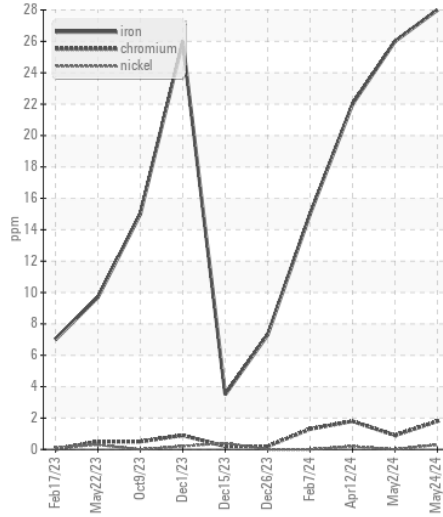
**Base Number**



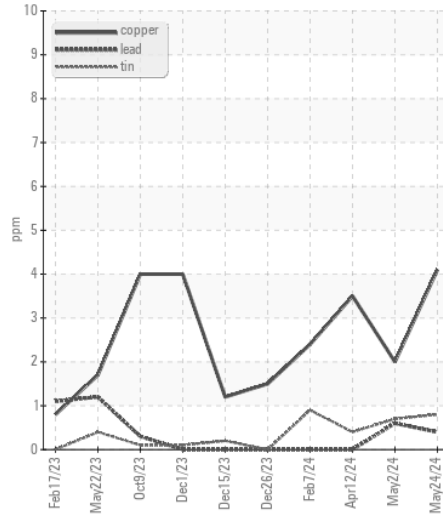
**Viscosity @ 100°C**



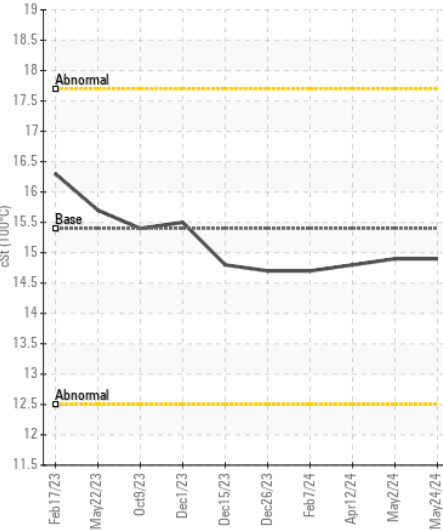
**Ferrous Alloys**



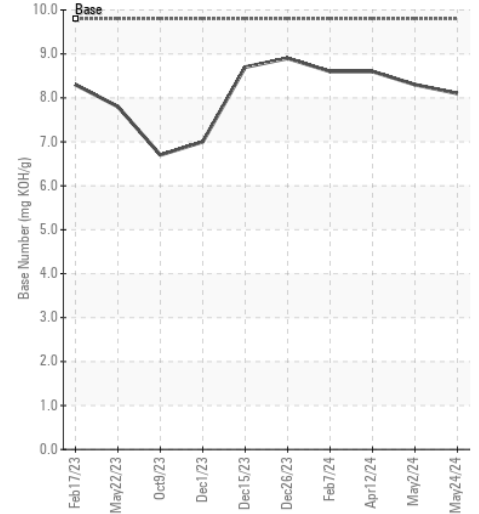
**Non-ferrous Metals**



**Viscosity @ 100°C**



**Base Number**



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : GFL0093510  
**Lab Number** : 06193431  
**Unique Number** : 11050183  
**Test Package** : FLEET

**Received** : 28 May 2024  
**Tested** : 30 May 2024  
**Diagnosed** : 30 May 2024 - Sean Felton

**GFL Environmental - 891 - Oklahoma City Hauling**  
 1001 South Rockwell  
 Oklahoma City, OK  
 US 73128  
 Contact: Andy Smith  
 andrew.smith@gflenv.com  
 T: (405)306-1651  
 F:

To discuss this sample report, contact Customer Service at 1-800-237-1369.

\* - Denotes test methods that are outside of the ISO 17025 scope of accreditation.

Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012)